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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/511,582	10/18/2004	Epke Bosma	19200-000041/US	4500

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HARNESS, DICKEY & PIERCE, P.L.C.
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RESTON, VA 20195

EXAMINER

NGUYEN, SON T

ART UNIT	PAPER NUMBER
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3643

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/30/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/511,582	BOSMA, EPKE	
	Examiner	Art Unit	
	Trinh Nguyen	3644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) 8-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 October 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

SON T. NGUYEN
PRIMARY EXAMINER

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1-7** are rejected under 35 U.S.C. 103(a) as being unpatentable over Birk (SE 200000179A on form PTO-1449) in view of Mangan (6031367 on form PTO-1449).

For claim 1, Birk discloses a method for separating a first quantity of milk drawn from a milking animal in an automatic milking machine and a second quantity of milk drawn from the milking animal in said milking machine comprising milking an animal using said automatic milking machine (page 3, lines 10-25), measuring a first indicator of mastitis during said milking (using sensors 45-48, page 4, line 10-11, page 6, lines 24-26), and in response to said first indicator of mastitis indicating mastitis, a second indicator (using measuring elements 25, a separate quality measuring device (page 5, line 16) or the floating body (page 5, lines 15-32)) of mastitis is performed, the second indicator of mastitis includes: analyzing at least a part of said first quantity of milk using a cell counter for counting the number of cells in said first quantity of milk (page 4, lines 8-11), and operating a valve 2a in dependence on the counted number of cells so that if the counted number of cells is below a first threshold (page 4, lines 8-20), said first quantity of milk is collected in a first container A, and if said counted number of cells is equal to or above said first threshold, said first quantity of milk is directed to a drain or a

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second container B,C (page 4, lines 11-14,26-33, page 5, lines 2-14, 15-25, page 6, lines 5-8,15-29). However, Birk is silent about using an on-line cell counter.

Mangan teaches an on-line cell counter for use in a method of milk quality analysis. It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the step of using an on-line cell counter as taught by Mangan in the method of Birk in order to get a more accurate analysis of mastitis in the milk.

For claim 2, Birk as modified by Mangan (emphasis on Birk) further discloses wherein the step of operating a valve further comprises the step of collecting said first quantity of milk in a third container if the counted number of cells are above a third threshold but below said first threshold and collect said first quantity of milk in said first container if said counted number of cells are below said third threshold, thereby collecting milk of a first superior quality in said first container, milk of a second quality in said third container and milk of a third quality is directed to said drain or collected in said second container (page 4, lines 15-22,27-33, page 5, lines 1-13).

For claim 3, Birk as modified by Mangan (emphasis on Birk) further wherein said first indicator of mastitis is one indicator, or a selection of multiple indicators, selected from a group of indicators comprising: the conductivity of said first quantity of milk, the NAgase value of said first quantity of milk, the Urea value of said first quantity of milk, the temperature of said first quantity of milk, the milk flow from said milking animal or the milk quantity from a teat of said milking animal (page 4, lines 8-11).

For claim 4, Birk as modified by Mangan (emphasis on Birk) further discloses wherein said small representative amount of milk is collected from a milk measuring device (page 4, lines 15-33, page 5, lines 15-20).

For claim 5, Birk as modified by Mangan (emphasis on Birk) further discloses wherein said first quantity of milk drawn from one milking animal is collected in an end unit for the duration of performing the somatic cell count (page 4, lines 15-33).

For claim 6, Birk as modified by Mangan (emphasis on Birk) further discloses wherein said first quantity of milk is collected from a first teat of a milking animal and said second quantity of milk is collected from a second teat of said milking animal (page 4, lines 6, 17-18).

For claim 7, Birk as modified by Mangan (emphasis on Birk) further wherein said first quantity of milk is collected from a first milking animal and said second quantity of milk is collected from a second milking animal (page 4, lines 17-18).

Response to Arguments

3. Applicant's arguments filed 11/13/06 have been fully considered but they are not persuasive.

Applicant argued that Birk merely discloses a flow meter for measuring quantity and quality of the milk. That is, Birk fails to disclose or suggest performing a "second indicator of mastitis" whereby the measurement of the first mastitis test will indicate for such a second test.

Clearly from the teaching of Birk, Birk discloses multiple testing done to detect mastitis. For example, from the diagram of fig. 1, the animal is being milked by teat cups

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10-13, and the quality and quantity of the milk is tested by sensors 45-48. Based on this test result, the milk is guided to intermediate receivers 2-5. Here in the receivers 2-5 or anywhere between the teat cups and the receiver (page 5, lines 16-17), another second quality and quantity testing is done by measuring elements 25 or a separate quality measuring device (see page 5, line 16 of Birk) or a floating body (see page 5, line 24). Milk that is not of premium quality and quantity based on the qualification threshold as explained on page 4, lines 10-20, will be drained out to a sewage or similar means (see page 5, line 22). Therefore, as one can see, Birk clearly teaches a multiple or at least two-step analysis test for the quality and quantity of the milk.

Applicant argued that Mangan is also completely silent with regard to "a first indicator of mastitis" and "a second indicator of mastitis". Mangan merely discloses a probe with two electrodes positioned in a zone of optimum sensing inside the flow chamber and provides a modulated signal according to the number of sodium ions present in the sample.² Thus, Mangan fails to disclose a "two-step" test of mastitis.

Mangan was not relied upon for a teaching of a two-step milk analysis. Mangan was relied upon for a teaching of an on-line cell counter (see the rejection above). Birk teaches a cell counter (page 4, lines 8-11, Birk indicates somatic cell count, thus, a cell counter to count the somatic cell count); however, Birk does not specifically states an on-line cell counter, which is fulfilled by Mangan. It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the step

of using an on-line cell counter as taught by Mangan in the method of Birk in order to get a more accurate analysis of mastitis in the milk.

Applicant argued that the Examiner is using impermissible hindsight reconstruction to reject the features recited in claim 1, especially using Mangan to fulfill Birk's missing of an on-line cell counter.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). On-line cell counter is known in the art and Mangan is relied upon to demonstrate this known concept, therefore, it is not hindsight reasoning.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trinh Nguyen whose telephone number is 571-272-6906. The examiner can normally be reached on Mon-Thu from 10:00am to 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter M. Poon can be reached on 571-272-6891. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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A handwritten signature in black ink, appearing to read 'Son T Nguyen', with a stylized, cursive script.

Son T Nguyen
Primary Examiner
AU 3643